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BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF RESOURCE PLANNING AND PROCUREMENT IN 2019, 2020, AND 2021	Docket No. E-00000V-19-0034

Sierra Club Comments on APS's Integrated Resource Plan and Ascend Independent Review

I. Introduction

Sierra Club appreciates the opportunity to submit these additional comments on Arizona Public Service's ("APS" or "the Company") 2020 Integrated Resource Plan ("IRP").[1] Based on our examination of APS's input assumptions and portfolio construction as well as our understanding of the purpose of the independent review being conducted by Ascend Analytics on behalf of the Utilities Division Staff, Sierra Club has significant concerns that the Ascend report will lack essential information and thus preclude the independent analysis that the Commission has requested. Though we have raised these concerns with Staff, our narrow request for an additional portfolio run was denied. We therefore submit these comments to urge the Commission to require Ascend and Staff to scrutinize APS's unreasonable assumptions regarding the Four Corners coal plant.

APS's IRP modeling has critically failed to answer the question: what is the least-cost resource plan to reliably serve APS ratepayers over the next two decades? A recent report from Strategen Consulting on behalf of the Southwest Energy Efficiency Project ("SWEEP") demonstrates that Four Corners is not part of a reliable optimum portfolio for APS. Specifically, the Strategen report found that APS could save upwards of $1.4 billion by safely retiring Four Corners in 2023, increasing energy efficiency, and expanding renewable energy and storage.[2] Nevertheless, neither APS nor Ascend has utilized optimized capacity expansion modeling to create and evaluate the Company's least-cost long-term resource plan, or alternatively tested earlier retirement dates for its coal plants to evaluate the cost difference that results. Instead, APS has hard-coded specific and far-off retirement dates for its coal plants into all its portfolio model runs and modeled the coal plants with must-run commitment status so they are required to always be

[1] These comments were prepared with the assistance of Synapse Energy Economics, Inc.
[2] Independent Analysis of Arizona Public Service's Integrated Resource Plan, Docket No. E-00000V-19-0034 (Apr. 28, 2021) *available at* https://docket.images.azcc.gov/E000013367.pdf?i=1620145539198 [hereinafter "Strategen Independent Analysis"].

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operating at their minimum operating levels when available. Absent direction from the Commission, Ascend and Staff intend to allow APS to continue this unwise practice. As a result, we respectfully request that the Commission require Ascend Analytics, as part of its independent review of the APS IRP, to conduct a run that removes the modeling constraints locking APS's coal plants into the system through 2031 in order to independently evaluate whether Four Corners should be safely and reliably replaced.

II. No consideration of closing Four Corners prior to 2031

In its IRP modeling, APS has failed to conduct essential due diligence to determine whether Four Corners is part of a future least-cost, reliable portfolio. APS requires the Four Corners Power Plant to operate through the end of its coal contract in 2031, in all of its final portfolios. APS does not even evaluate whether retiring Four Corners—inclusive of the cost of its coal contract, the cost of obtaining water, and the avoided sustaining capital costs—would actually be cheaper than reliable and safe alternative resource options like renewables and battery storage. Without conducting this due diligence, it is impossible for APS, or Ascend Analytics, to make any assertions about what would comprise the Company's "least-cost" portfolio. The Company also does not evaluate the impact on market prices of locking in Four Corners. This failure to model and understand the economics of retiring the plant also unfairly impedes realistic transition planning for the communities that will be impacted by the plant's retirement.

III. Failure to include the value of the coal contract as a retirement cost

APS's decision to model the Four Corners plant as operating through 2031 is driven by its erroneous implication that it cannot exit its current long-term coal contract.[3] But APS is not unique in having a fuel contract that drives significant fuel expenses, and the fact of this contract should not inhibit it from considering and evaluating an early retirement. For example, the Southwestern Electric Power Company is shutting down Dolet Hills and Pirkey—its two lignite mine-mouth plants—this year and in 2023 respectively, despite the significant sunk costs incurred at the mines that still have to be recovered from ratepayers. Similarly, Otter Tail Power in Minnesota has indicated that it will likely evaluate retirement at its Coyote coal plant as part of its next IRP inclusive of the cost associated with the buy-out/termination option for the applicable coal supply contract.

Contrary to APS's implication, APS has acknowledged that it could terminate its existing Four Corners coal supply agreement with 24-months' notice, thus avoiding significant coal fuel costs. Given the increasingly poor economic performance of coal plants relative to gas and renewable resources in this country, the Commission should require APS and Ascend to calculate the remaining contract cost, and model this as a cost of an alternative portfolio. Recent modeling by

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[3] Ariz. Pub. Serv., 2020 Integrated Resource Plan at 133, Docket No. E-00000V-19-0034 (June 26, 2020), *available at* https://docket.images.azcc.gov/E000007312.pdf.

Strategen for SWEEP demonstrated that even paying substantial termination costs would only reduce early retirement savings "to a small degree," and an optimum portfolio, which includes a 2023 retirement for Four Corners with renewable replacement, could save ratepayers $1.4 billion through 2035.[4]

IV. Commission Staff has rejected our request to address this shortcoming in modeling

Sierra Club formally communicated our concerns around this shortcoming in the Company's modeling in comments, filed on October 15, 2020, and during the Arizona Corporation Commission Open Meeting on March 15, 2021. We also voiced this concern to Commission Staff during two meetings with Ascend Analytics that Staff held for Stakeholders on April 22 and May 21, 2021, and again via email on May 28. In a June 3 response to our May 28th email, Staff indicated that our request would not be accommodated because "...this is not part of the scope of this engagement…." Considering that this is supposed to be an "independent analysis" to critically evaluate whether APS is engaged in rational resource planning, how could this possibly be outside the scope of the engagement?

We flagged similar concerns related to TEP's modeling of Four Corners in its IRP. However, given the breadth of modeling TEP has already conducted as well as the timeline for review and available resources, we have focused this request to the Commission only on APS's modeling failures.

V. Requested modeling runs

Therefore, we respectfully request that the Commission require Ascend Analytics, as part of its review of the APS IRP, to conduct a run that removes limitations locking APS's coal plants into the system through 2031 in order to independently evaluate whether Four Corners should be safely and reliably replaced. Specifically, this modeling should include the following:

- Use of optimized capacity expansion settings, or alternatively testing of earlier retirement dates for the Company's coal plants (e.g., retirement of at least one unit in 2026);
- Removal of the must-run designation on coal plants for unit commitment runs; and,
- Inclusion of the full cost of terminating the Company's *existing* coal contracts.

Additionally, the following elements, which were omitted from APS's modeling, should be captured as time permits.

- An alternative market price forecast developed without the assumption that Four Corners is locked in until 2031;

[4] Strategen Independent Analysis, *supra* note 1, at 21.

- The cost and risk of obtaining water;
- The costs associated with complying with effluent limitation guidelines, and any other likely future environmental regulations;
- A schedule of sustaining capital costs matched with retirement dates to ramp down capital spending in advance of retirement; and,
- A plan to address community economic, employment, and tax base impacts.

Thank you for considering our request.

/s/ Sandy Bahr

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